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To: Joe McGovan CR

From: Chet Rock

Subject: Tax Credit Appeal - Weyerhaeuser Chlor-Alkali

Date: December 3, 1974

Question: Is there an operational advantage to be gained by converting to the diaphragm cell process?

Answer: Weyerhaeuser states that the cost of chlorine production will increase $1.44/ton and caustic production $2.20/ton. No justification is readily apparent other than a ten fold increase in steam useage and expensive nickel multiple effect evaporators. The steam supply is obtained from the nearby pulp mill, which can supply the extra steam without another boiler. The evaporators are to concentrate the caustic (a 50% solution is normally shipped), which was not necessary with the mercury cell process, thus obviously adding to the cost of caustic. Electrical useage will increase only 18%, while production increase is 45%. This suggests to me some operational advantage is gained, but both processes have about the same current efficiency. Production figures indicate that in 1961, 75 percent of the total U. S. production of chlorine was by diaphragm cell, although mercury cell production was increasing. On the world market. the mercury cell is dominant.

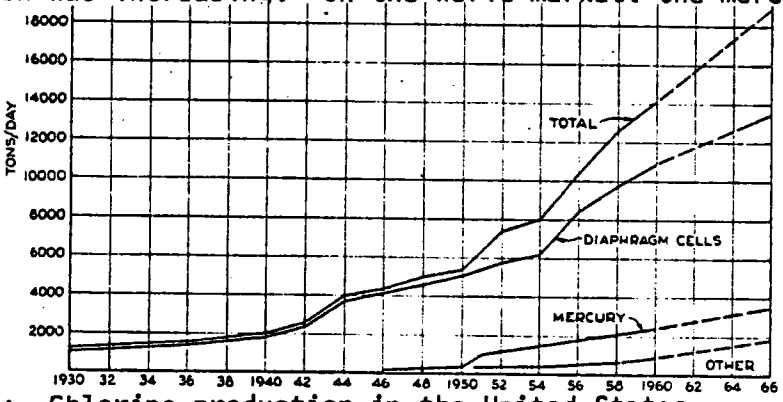

Figure 1: Chlorine production in the United States.

According to Weyerhaeuser's E.I.A., they chose the mercury cell process in 1956 because "it was newer, more efficient from the standpoint of total energy used and produced a purer caustic."

Question: What are the 1983 requirements for mercury discharge?

Answer: According to the March 12, 1974 Federal Register, 39 (40):9622

BATEA for a mercury cell plant is no discharge of process waste water pollutants into navigable waters, EXCEPT that a process waste water impoundment which is designed, constructed, and operated so as to contain the precipitation from

the 25 year, 24 hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration for the area in which such impoundment is located may discharge that volume of process waste water which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 25 year, 24 hour rainfall event, when such event occurs.

BATEA for a diaphragm cell plant is no discharge of process waste water pollutants to navigable waters. According to WEYCO's interpretation this is just as impossible to achieve as was the mercury standard.

According to their NPDES permit #3450, mercury discharge was to be reduced to 0.1 lb/day by January 1, 1976. WEYCO estimated that this would cost rough $7,000,000. The 1977 effluent guidelines (EPA) would have allowed a discharge of only 0.0742 lb/day of mercury, based on pre-expansion production.

Question: Could you send copy of memo on tax credit to Bollen?

Answer: The only memo in our files that might be of help is my memo to Chuck Lean of May 27, 1974. I prepared an evaluation of the tax credit application and sent it to Dottie Ness for processing, hence she might be able to give you more information. If you have any additional questions, give me a call and I will try to run down the answers. Please let me know where a date for the hearings board has been set.